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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/568,472

02/14/2006

Florian Lunzer

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EXAMINER

LIGHTFOOT, ELENA TSOY

ART UNIT

PAPER NUMBER

1792

MAIL DATE

DELIVERY MODE

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/568,472	<b>Applicant(s)</b> LUNZER ET AL.	
	<b>Examiner</b> Elena Tsoy Lightfoot	<b>Art Unit</b> 1792	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 24 March 2009.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) 6-10 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-5 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                       | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>2/14/2006</u> .   | 6) <input type="checkbox"/> Other: _____                          |

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***Election/Restrictions***

1. Applicant's election with traverse of Group I, claims 1-5 in the reply filed on March 24, 2009 is acknowledged. The traversal is on the ground(s) that the claimed subject matter of each of the Groups I, II and III is closely related, and similar issues of patentability are presented in each of the three groups, and the fields of search are similar and overlapping. This is not found persuasive because, according to MPEP 806, restriction is proper if there would be a serious search burden on the Examiner if restriction were not required, as evidenced by the fact that claimed subject matter of each of the Groups I, II and III is different from each other such that claimed subject matter of each Group should require different field of search.

The requirement is still deemed proper and is therefore made FINAL.

***Claim Objections***

2. Claims 1-5 are objected to because of the following informalities: it is advised to change "polyesterurethane" to more conventional spelling "polyester urethane". Note that the Abstract spells resin as "polyester urethane". Appropriate correction is required.

It is also advised to change "characterized in that" to "wherein".

***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

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***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1 and 4-5 are rejected under 35 U.S.C. 102(b) as being anticipated by Blum et al (US 6,541,535).

Blum et al teaches a radiation-curable unsaturated polyesterurethanes (See column 5, lines 49-50) formed by reacting diisocyanates having isocyanate groups of different reactivity (polyfunctional isocyanates **B**), such as isophorone diisocyanate, with half the equivalent amount of hydroxyvinyl ethers, hydroxyl-functional acrylates or allyl alcohol (claimed olefinically unsaturated monomers containing hydroxyl groups **C**) and then to react these reaction products with the prepolymeric polyesters (claimed polyester **A**) (See column 7, lines 19-27) such that the unsaturated polyesterurethanes contain structural units derived from A, B and C.

As to claims 4-5, the polyester A has an acid number of 6 and an OH number of 56 (See column 14, lines 1-2, 65-66). Therefore, mass fractions of the components A1 to A4 are within claimed ranges because the acid number and OH number depend on mass fractions of the components A1 to A4.

6. Claims 2-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Blum et al '535.

As to claims 2-3, Blum et al teaches that suitable for synthesizing the polyester resins are the customary and known carboxylic acids having >2 carboxyl groups, and hydroxy compounds

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having >2 OH groups (See column 5, lines 50-56). Examples of suitable carboxylic acid components (claimed acids **A3**) are saturated aliphatic carboxylic acids such as *succinic acid*, adipic acid, suberic acid, *sebacic acid*, azelaic acid (See column 5, lines 63-65), aromatic carboxylic acids and their anhydrides, such as *phthalic acid* in its *isomer* forms (See column 6, lines 5-6), also tri- and tetracarboxylic acids such as *trimellitic acid*, pyromellitic acid (See column 6, lines 6-8), naturally occurring *fatty* acids and polymerized naturally occurring *fatty acids*, such as *linseed oil fatty acid*, dimeric linseed oil fatty acid and polymeric linseed oil fatty acid, castor oil, *castor oil fatty acid* (claimed acids **A4**) (See column 5, line 65 to column 6, line 1). Examples of suitable hydroxy components are ethylene glycol, *propylene glycol*, *butanediol* isomers, *hexanediol*, tri-methylolpropane, pentaerythritol, *neopentyl glycol*, cyclohexanedimethanol (claimed alcohols A1 and A2) and *polyethylene glycol*, *polypropylene glycol* (claimed alcohols A1') (See column 6, lines 14-33).

Blum et al fails to teach that a combination of dihydric and trihydric alcohols and a combination of dibasic acids and fatty acids are used for making polyester prepolymer. However, it is well settled that it is prima facie obvious to combine two compositions each of which is taught by the prior art to be useful for the same purpose, in order to form a third composition which is to be used for the very same purpose. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have used a combination of dihydric and trihydric alcohols and a combination of dibasic acids and fatty acids with the expectation of providing the desired polyester prepolymer.

As to concentration limitations of claims 4-5, it is held that concentration limitations are obvious absent a showing of criticality. *Akzo v. E.I. du Pont de Nemours* 1 USPQ 2d 1704 (Fed.

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Cir. 1987). It would have been obvious to one of ordinary skill in the art at the time the invention was made to have determined the optimum values of the relevant concentration parameters (including those of claimed invention) in Blum et al depending on particular use of a final product through routine experimentation in the absence of showing of criticality.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Elena Tsoy Lightfoot whose telephone number is 571-272-1429. The examiner can normally be reached on Monday-Friday, 9:00AM - 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Timothy Meeks can be reached on 571-272-1423. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Elena Tsoy Lightfoot, Ph.D.  
Primary Examiner  
Art Unit 1792

May 20, 2009

/Elena Tsoy Lightfoot/